

Appl. No. : 10/747,866
Filed : December 29, 2003

REMARKS

By this Amendment, Applicant has amended claims 1, 2, 4, 9, 11, 13, 16 and 19 to further clarify preferred features of the present invention. Applicant has amended claims 1, 2, 4, 13, 16 and 19 to include all of the limitations of the base claim. Applicant has amended claims 9 and 11 to overcome the Examiner's rejections under 35 U.S.C. § 112.

No new matter is added by this Amendment. Applicant respectfully submits that all of the Examiner's grounds for rejection have now been addressed and therefore requests the Examiner to pass the pending claims to allowance.

Rejection of Claims 9, 11 and 12 under 35 U.S.C. § 112

The Examiner rejected claims 9, 11 and 12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to Claim 9, the Examiner asserts that "relatively thin center portion and thicker side portions" is vague and indefinite and it is not clear what is thin or thick. Regarding Claim 11, the Examiner notes that "a first end of said elongate member" should be corrected to "said first end of said elongate member."

Applicant has amended Claim 9 to recite that "said central channel provides a relatively thin center portion and thicker side portions, said center portion and said side portions extending between said first and second ends along a longitudinal axis of said coupling mechanism." As a result, Claim 9 is no longer vague and indefinite. Applicant has also amended Claim 11 as suggested by the Examiner. Accordingly, Applicant requests the Examiner to withdraw the rejection of Claims 9, 11 and 12 based on 35 U.S.C. § 112.

Rejection of claims 1, 2, 4, 5, 7, 8, 10, 13 and 14 under 35 U.S.C. § 102(b) - Mies

The Examiner rejected claims 1, 2, 4, 5, 7, 8, 10, 13 and 14 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,283,755 to Mies. The Examiner asserts that Mies discloses all the claimed features of Applicant's invention. The Examiner particularly notes FIGS. 9 and 10 of Mies wherein a support is shown having a ground engaging portion (14), a seat engaging portion (16), and a connecting portion (18). A reinforcing web (f) (i.e., projection) extends along an outer surface to provide a cross-sectional profile having a T-shape. The

Appl. No. : 10/747,866
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Examiner asserts that the embodiment of Mies shown in FIGS. 9 and 10 is a C-shaped spring that includes channels extending longitudinally between a first end and a second end.

Applicant has amended independent claims 1, 4 and 13 to further clarify over Mies. Claim 1 has been amended to recite "a C-shaped spring having a top segment, a bottom segment and a curved segment, said curved segment being located between said top and bottom segments and curving at least 180 degrees, said elongate member including a central channel extending longitudinally along said first side between a first end and a second end." Mies fails to disclose or suggest a C-shaped spring having a central channel. Rather, Mies discloses "channels" disposed on the sides of a reinforcing rib (f). Mies illustrates a central protrusion, not a channel of any sort.

Claim 4 has been amended to recite an "elongate member being formed into a C-shaped member to provide a top segment, a bottom segment and a curved segment, said top and bottom segments being substantially parallel, said C-shaped member having an inner surface and an outer surface, wherein a central channel extends longitudinally along said outer surface to provide a contoured cross-sectional profile." As discussed above, Mies fails to disclose or suggest a central channel.

Claim 13 has been amended to recite a coupling member "wherein at least two parallel, spaced-apart channels extend longitudinally along said outer surface for providing a contoured cross-sectional profile, said channels creating first and second thin center portions located between thicker side portions, said thin center portions and said thicker side portions extending between said first and said second ends along a longitudinal axis of said coupling mechanism." Mies fails to disclose or suggest spaced-apart channels creating first and second thin center portions located between thicker side portions. The "channels" disclosed by Mies are provided on the outsides of the support (on opposite sides of the rib) and therefore are not located between thicker side portions.

Therefore, Mies fails to teach or suggest the unique combination of features recited by Applicant. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1, 2, 4, 5, 7, 8, 10, 13 and 14 under 35 U.S.C. § 102(b) based on Mies.

Appl. No. : 10/747,866
Filed : December 29, 2003

Rejection of claims 1, 4-6, 8-10 and 13 under 35 U.S.C. § 102(b) - Rowland et al.

The Examiner rejected claims 1, 4-6, 8-10 and 13 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,533,511 to Rowland et al. The Examiner asserts that Rowland et al. discloses a C-shaped spring (Figure 11) having longitudinal channels on an outer surface and a flat inner surface and with first and second adjacent ends (5) having a hole for fastener (F) attachment to a component (D) with thicker side portion (3) and a thin center portion (2).

Rowland discloses a single leaf variable section spring. The spring is tapered toward the ends and includes grooves having variable widths and depths. Although Applicant disagrees that the support can be properly characterized as a C-shaped member, Applicant has amended the independent claims to further clarify over Rowland.

Claim 1 now recites "a C-shaped spring having a top segment, a bottom segment and a curved segment, said curved segment being located between said top and bottom segments and curving at least 180 degrees." Rowland fails to disclose or suggest a C-shaped member having a curved segment that curves at least 180 degrees.

Claim 4 now recites "a C-shaped member to provide a top segment, a bottom segment and a curved segment, said top and bottom segments being substantially parallel." Rowlands fails to disclose or suggest top and bottom segments that are substantially parallel.

Claim 13 now recites an "elongate member having an inner surface and an outer surface, wherein at least two parallel, spaced-apart channels extend longitudinally along said outer surface for providing a contoured cross-sectional profile, said channels creating first and second thin center portions located between thicker side portions, said thin center portions and said thicker side portions extending between said first and said second ends along a longitudinal axis of said coupling mechanism." Rowland fails to disclose or suggest channels creating first and second thin center portions located between thicker side portions.

Accordingly, Applicant respectfully requests that the Examiner withdraw the claim rejections based on Rowland.

Rejection of Claims 3 and 15 under 35 U.S.C. § 103(a)

The Examiner rejected claims 3 and 15 as being unpatentable over Mies in view of Vanderminden, Sr. As discussed above, Applicant has amended claims 1 and 13 to include claim limitations not disclosed by Mies. Claims 3 and 15 depend on claims 1 and 13, respectively.

Appl. No. : 10/747,866
Filed : December 29, 2003

Accordingly, the cited combination of references fails to teach or suggest all the claim limitations of claims 3 and 15. Therefore, Applicant respectfully requests that the Examiner withdraw the rejections of claims 3 and 15 under 35 U.S.C. §103(a).

Rejection of Claims 11 and 19 under 35 U.S.C. § 103(a)

The Examiner rejected claims 11 and 19 as being unpatentable over Mies in view of Holstrom. Claim 11 depends on claim 4, which has been amended to include claim limitations not disclosed by Mies. Furthermore, claim 19 has been amended to recite a method of manufacturing which includes "providing an elongate member having a substantially rectangular cross-section and formed with a central channel extending longitudinally along a top surface" and "bending said elongate member by at least 180 degrees such that said channel is provided along an outer surface." Neither Mies nor Holstrom disclosures provide an elongate member having a central channel and bending the elongate member by at least 180 degrees. Accordingly, the cited combination of references fails to teach or suggest all the claim limitations of claims 11 and 19. Therefore, Applicant respectfully requests that the Examiner withdraw the rejections of claims 11 and 19 under 35 U.S.C. §103(a).

Rejection of Claims 1-10 and 12-18 under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-10 and 12-18 as being unpatentable over Vanderminden, Sr. in view of Rowland. Applicant notes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Vanderminden is directed toward a swivel rocker chair. On the other hand, Rowland teaches a single-leaf variable section spring for a vehicle. Thus, one of skill in the art would not be motivated to combine the references of Vanderminden and Rowland to arrive at Applicant's claimed invention. Moreover, even if the references were combined, albeit improperly, the claimed invention would not provide the claimed invention. Rather, Rowland is directed to a leaf spring having tapered grooves configured to shift the effective neutral axis of the spring to the tension side. In contrast, Applicant's coupling member has a groove along the outer surface

Appl. No. : 10/747,866
Filed : December 29, 2003

which shifts the neutral axis toward the compression (inner side) for providing flexibility and a smooth rocking motion. For at least these reasons, Applicant respectfully requests that the Examiner withdraw the obviousness rejection of claims 1-10 and 12-18.

Rejection of Claims 11 and 19 under 35 U.S.C. § 103(a)

The Examiner rejected claims 11 and 19 as being unpatentable over Vanderminde, Sr. in view of Rowland and further in view of Holstrom. For the reasons discussed above, one of skill in the art would not be motivated to combine the references of Vanderminde and Rowland. Accordingly, the cited combination of references cannot be properly used to reject claims 11 and 19 under 35 U.S.C. § 103(a).

CONCLUSION

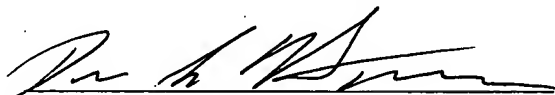
For the reasons stated above, Applicant earnestly believes that the present application is now in condition for allowance and such action is respectfully requested. Should the Examiner have any further issues remaining or require further clarification, the Examiner is invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By: 
David L. Hauser
Registration No. 42,463
Attorney of Record
Customer No. 20,995
(949) 721-7624